

In the Claims:

Please amend Claims 1, 5, 8-15, 17, 18 and 20; and add new Claims 21-26, all as shown below. Applicant respectfully submits that the new Claims are fully supported by the Specification and that no new matter is being added.

1. (Currently Amended) A method for performing resource pool size maintenance for an application server, comprising:

maintaining a pool of resources for the application server;

maintaining a first plurality of resources that have been determined to be at least one of not created successfully and not able to be refreshed, in an unavailable deque;

maintaining a second plurality of resources that have been determined to be available, in an available deque;

triggering a resource pool shrink check;

determining that pool shrinking is necessary;

~~reducing resources that have been determined to be at least one of not created successfully and not able to be refreshed in an~~ in the unavailable deque; and then

~~reducing resources that have been determined to be available in an~~ in the available deque.

2. (Original) The method of claim 1 wherein said triggering a resource pool shrink check includes:

determining that a period of time has expired; and

performing the resource pool shrink check at the expiration of the period of time.

3. (Original) The method of claim 2 wherein the period of time is set by a programmable attribute.

4. (Previously Presented) The method of claim 1 wherein said determining that pool

shrinking is necessary includes:

detecting resources contained in the available deque or the unavailable deque.

5. (Currently Amended) The method of claim 1 wherein determining that pool shrinking is necessary includes:

determining that the number of resources in the resource pool is greater than a maximum resource pool threshold value.

6. (Original) The method of claim 5 wherein the maximum resource pool threshold value is set by a programmable attribute.

7. (Original) The method of claim 1 wherein reducing resources in an unavailable deque includes:

reducing resources in an unavailable deque to coincide with a maximum unavailable resources threshold.

8. (Currently Amended) The method of claim 7 1 wherein the ~~reduced resources in the unavailable deque are destroyed~~: reducing resources in the unavailable deque includes destroying the resources.

9. (Currently Amended) The method of claim 1 wherein reducing resources in an available deque includes:

reducing resources in an available deque to coincide with a maximum ~~available resources~~ resource pool threshold value.

10. (Currently Amended) The method of claim 9 1 wherein ~~resources in the available deque are destroyed~~: the reducing resources in the available deque includes destroying the resources.

11. (Currently Amended) A method for performing resource pool maintenance for an application server, comprising:

maintaining a pool of resources;

triggering a resource testing check test for the pool of resources;

determining that a test on pool resources is necessary;

determining whether at least one of the resources is functioning properly by performing a the test on pool resources; and

refreshing pool resources that have been determined to be not functioning properly based on the pool resources testing.

12. (Currently Amended) The method of claim 11 wherein said triggering a resource testing check test for the pool of resources includes:

determining that a period of time has expired; and

performing the resource pool-shrink testing check at the expiration of the period of time.

13. (Currently Amended) The method of claim ~~44~~ 12 wherein the determining that a period of time has expired includes said determining whether at least one of the resources is functioning properly by performing a test on pool resources includes:

reading an attribute that determines the frequency of resource testing.

~~refreshing resources determined to not be functioning properly:~~

14. (Currently Amended) A method for performing maintenance on connection pool dequeues in an application server, comprising:

maintaining an unavailable deque of resources that have been determined to be at least one of not created successfully and not able to be refreshed;

maintaining a reserved deque of resources that have been requested or are in use;

~~traversing an the unavailable deque of resources that have been determined to be at least one of not created successfully and not able to be refreshed and a the reserved deque of resources that are allocated;~~

performing maintenance on the unavailable deque; and  
performing maintenance on the reserved deque.

15. (Currently Amended) The method as claimed in claim 14 wherein said traversing ~~an the~~ unavailable and ~~a the~~ reserved deques includes:

determining what resources are available in the unavailable deque and the reserved deques deque.

16. (Original) The method as claimed in claim 14 wherein said performing maintenance on the unavailable deque includes:

scheduling resource creation for each resource in the unavailable deque.

17. (Currently Amended) The method as claimed in claim 14 wherein said performing maintenance on the reserved deque includes:

~~scheduling resource creation for each resource in the reserved deque;~~

determining whether a resource in the reserved deque has been used since the last time maintenance was performed on the reserved deque;

moving the resource to the available deque upon the determination that the resource was not used since the last time maintenance was performed.

18. (Currently Amended) A method for performing resource creation in a connection

pool in an application server, comprising:

generating a resource in the connection pool;

determining ~~that~~ whether the resource was created successfully in the connection pool; and

moving the resource to an available deque when successful generation of the resource is confirmed, otherwise moving the resource to an unavailable deque for tracking resources that are not created successfully.

19. (Original) The method of claim 18 further comprising:  
determining that a period of time has expired; and  
generating a resource at the expiration of the period of time.

20. (Currently Amended) A method for performing resource pool maintenance, comprising:

maintaining a pool of resources;

maintaining an unavailable deque of resources that have been determined to be at least one of not created successfully and not able to be refreshed;

maintaining an available deque of resources that have been determined to be available;

determining that pool shrinking is necessary;

removing unavailable resources that have been determined to be at least one of not created successfully and not able to be refreshed from an unavailable deque of a resource pool; and

removing available resources from an available deque of the resource pool.

21. (New) The method of claim 16 wherein the scheduling resource creation for each resource in the unavailable deque includes:  
scheduling a resource retry task.

22. (New) The method of claim 21 wherein the scheduling a resource retry task includes:  
generating a resource in the connection pool;  
determining whether the resource was created successfully in the connection pool;  
moving the resource to an available deque and cancelling the resource retry task  
when successful generation of the resource is confirmed; and  
moving the resource to an unavailable deque for tracking resources that are not  
created successfully and retrying the step of generating a resource in the connection pool,  
upon unsuccessful generation of the resource.
23. (New) The method of claim 22 wherein a periodicity of the resource retry task is  
determined by reading an attribute that is configured by an application or a resource pool  
object.
24. (New) The method of claim 16 wherein the scheduling resource creation for  
each resource in the unavailable deque includes:  
determining that a period of time has expired; and  
generating a resource at the expiration of the period of time.
25. (New) The method of claim 17 further comprising:  
determining that a period of time has expired; and  
performing maintenance on the reserved deque at the expiration of the period of  
time.
26. (New) The method of claim 25 wherein the period of time is an attribute  
configured by an application or a resource pool object.